



Complete Summary

TITLE

Perinatal care: percentage of newborns delivered from mothers who tested positive for hepatitis B surface antigen (HBsAg) during pregnancy who receive birth doses of hepatitis B virus (HBV) vaccine and hepatitis B immune globulin (HBIG) within 12 hours of delivery.

SOURCE(S)

Appendix A: National voluntary consensus standards for perinatal care. Performance measure specifications. Washington (DC): National Quality Forum (NQF); 2008 Oct 20. A1-7 p.

National voluntary consensus standards for perinatal care. Washington (DC): National Quality Forum (NQF); 2008. 36 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of newborns delivered from mothers who tested positive for hepatitis B surface antigen (HBsAg) during pregnancy who receive birth doses of hepatitis B virus (HBV) vaccine and hepatitis B immune globulin (HBIG) within 12 hours of delivery.

RATIONALE

Pregnancy and childbirth is the second most common reason for hospital admission. In 2005, 4.2 million childbirth-related hospital stays were recorded,

during which pregnancy and childbirth-related procedures accounted for the five most common procedures in patients aged 18 to 44, and birth-related procedures were the most common procedures in infants. Given the sizeable volume of maternity admissions, deficiencies in perinatal care can affect a large population of vulnerable patients. Morbidity and mortality associated with pregnancy and childbirth is substantial and, evidence suggests, is largely preventable through the delivery of high quality perinatal care and adherence to evidence-based guidelines. Poor quality care during the third trimester, labor and delivery, and in the postpartum period can translate into unnecessary complications, prolonged lengths of stay, costly Neonatal Intensive Care Unit (NICU) admissions, and anxiety and suffering for patients and families. Moreover, numerous studies have documented persistent racial, ethnic, and socioeconomic disparities in maternal mortality, preterm births, low birthweight infants, and other adverse outcomes.

Most individuals chronically infected with hepatitis B virus (HBV) acquire their infection at birth through mother-to-child transmission of the virus, and more than 90% of newly infected infants develop chronic hepatitis B. The time of birth is the critical period not only for acquisition of chronic HBV infection, but also for its prevention - prophylaxis against HBV transmission is most effective when it is administered within 12 hours of birth. According to the 2005 recommendations of the Advisory Committee on Immunization Practices (ACIP), all infants born to hepatitis B surface antigen (HBsAg)-positive women should receive the HBV vaccine and hepatitis B immune globulin (HBIG) within 12 hours of birth, complete the HBV vaccine series after age 24 weeks, and undergo post-vaccination serological testing for hepatitis B surface antibody (anti-HBs) and HBsAg between 9 and 18 months of age. Of the estimated 20,000 infants born each year to women with chronic hepatitis B, fewer than 50% are currently identified for postnatal prophylaxis.

PRIMARY CLINICAL COMPONENT

Newborn; immunization (hepatitis B virus [HBV], hepatitis B immune globulin [HBIG])

DENOMINATOR DESCRIPTION

Number of newborns weighing greater than or equal to 2,000 g delivered from mothers who tested positive for hepatitis B surface antigen (HBsAg) during pregnancy (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Number of newborns from the denominator who receive birth doses of hepatitis B virus (HBV) vaccine and hepatitis B immune globulin (HBIG) within 12 hours of delivery

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Pierce RL, Smith S, Rowe-West B, Sterritt B. Hepatitis B maternal screening, infant vaccination, and infant prophylaxis practices in North Carolina. Arch Pediatr Adolesc Med 1999 Jun;153(6):619-23. [26 references] [PubMed](#)

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Newborns

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

See the "Rationale" field.

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

See the "Rationale" field.

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Number of newborns weighing greater than or equal to 2,000 g delivered from mothers who tested positive for hepatitis B surface antigen (HBsAg) during pregnancy

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of newborns delivered from mothers who tested positive for hepatitis B surface antigen (HBsAg) during pregnancy

Exclusions

Stillbirths, preterm infants weighing less than 2,000 g at birth

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Patient Characteristic

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of newborns from the denominator who receive birth doses of hepatitis B virus (HBV) vaccine and hepatitis B immune globulin (HBIG) within 12 hours of delivery

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Laboratory data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure**SCORING**

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties**EXTENT OF MEASURE TESTING**

Unspecified

Identifying Information**ORIGINAL TITLE**

Birth dose of hepatitis B vaccine and hepatitis immune globulin for newborns of mothers with chronic hepatitis B.

DEVELOPER

Asian Liver Center at Stanford University

FUNDING SOURCE(S)

Grant #1R18PS000830 (CD07-005, "Translating research into the Jade Ribbon Campaign for perinatal HBV prevention") from the Centers for Disease Control and Prevention and private donations to the Asian Liver Center at Stanford University

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

University-based, non-profit organization

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

None

ENDORSER

National Quality Forum

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2008 Oct

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Appendix A: National voluntary consensus standards for perinatal care. Performance measure specifications. Washington (DC): National Quality Forum (NQF); 2008 Oct 20. A1-7 p.

National voluntary consensus standards for perinatal care. Washington (DC): National Quality Forum (NQF); 2008. 36 p.

MEASURE AVAILABILITY

The individual measure, "Birth Dose of Hepatitis B Vaccine and Hepatitis Immune Globulin for Newborns of Mothers with Chronic Hepatitis B," is published in "National Voluntary Consensus Standards for Perinatal Care."

For more information, please contact the Asian Liver Center at Stanford University at 1-888-311-3331 or visit them on the Web at <http://liver.stanford.edu>.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on February 26, 2009. The information was verified by the measure developer on March 19, 2009.

COPYRIGHT STATEMENT

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For more information, please contact the Asian Liver Center at Stanford University at 1-888-311-3331 or visit them on the Web at <http://liver.stanford.edu>.

Disclaimer

NQMC DISCLAIMER

The National Quality Measures Clearinghouse™ (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria which may be found at <http://www.qualitymeasures.ahrq.gov/about/inclusion.aspx>.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. The inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.

[Copyright/Permission Requests](#)

Date Modified: 4/20/2009

